

Marker	Type	Location	Landmarks	Primer	SEQ. ID NO.	Direction	Enzyme	Reference
Topasin	ms	0.10		HEC CTG TAA TCC CAG CTA CTC AAC G GGG AGA CTT AAA CAG CAG AAA TGT	1	forward		This work based on GenBank 197183
HKE 6	ms	0.22		TET TCG GGA TCA TTT CAG TAA TCT GGG ATC CCC TGT AAC TCT	2	reverse		Kirkhoff et al., <i>Genomics</i> 42:472-435 (1997). This work based on GenBank 084401
Top1	ms	0.6		HLA-DPB1	3	forward		GBB ID 000-250-903; Carrington & Dean, <i>Human Molecular Genetics</i> 3:218 (1994)
		0.75		HEX GGA CAA TAT TTT CCT GAG G GCT TTG ATC TCC CCC CTC	4	reverse		
		0.83		HLA-DQB1	5	forward		
HLA-DRA	snp	1.0		HLA-DRB1	6	reverse		
NoiCh4	ms	1.2		GAG CTC GGC AGT GAG GCA GAA CAG TGA GGT GTG TTC ATT AGT CAA CTC FAM CGT CTC TAT TTG GGC AGT GAG GGC CGA GGA GGA AGA AGA	7	forward	DdeI	Elinov et al., <i>Nucleic Acids Res.</i> 18:7195 (1990)
HSP-HOM	snp	1.6		FAM CGT CTC TAT TTG GGC AGT GAG GGC CGA GGA GGA AGA AGA	8	reverse		Sugiyama et al., <i>Gene</i> 189:235-244 (1997)
D6S273	ms	1.7		CCT GAT CCC ATA GGC CTC AGA GAA CC GTA ACT TAG ATT CAG GTC TGG	9	forward		
Bu12	ms	1.8		FAM ACC AAA CCT CAA ATT TTC GG GCA ACT TTT CTG TCA ATC CA HEX GGA GCT AAA AGT TCT AAC TC TGT CTC AAA ATA TTA ATG TG	10	reverse	Ncol	Milner & Campbell, <i>ImmunoGenetics</i> 36:357-362 (1997)
					11	forward		
					12	reverse		
					13	forward		GBB ID 000-133-162; ATM142XN6; Gycopoy et al., <i>Nature Genetics</i> 7:246-259 (1994)
					14	reverse		
					15	forward		This work based on GenBank 115025
					16	reverse		

Figure 1A

Marker	Type	Location	Landmarks	Primer	SEQ. ID NO.	Direction	Enzyme	Reference
1ST1	Snp	1.84		TAG TAA TTT GTT GGG TGA ATG ACA CAC ACT GCC ACT CCT CAC AT	17	forward	PvuII	DeBrey et al., <i>Human Immunol.</i> 42:9-14 (1994). This work based on GenBank U00921
TNF δ	ms	1.84		TET CAT ACT GGG ACT CTG TCT CCA AAG AGA TCC TTC CCT GTG ACT TCT GCT TET GTC CCT GGT TCT GGA CCC TCT C	18	reverse		Nedospasov et al., <i>J Immunol.</i> 147:1053-1059 (1991); Udolova et al., <i>Genomics</i> 16:160-166 (1993)
TNF ϵ	ms	1.84		TGA GAC AGA GGA TAG GAC AGA CAG	19	forward		Nedospasov et al., <i>Supra</i> , (1991); Udolova et al., <i>Supra</i> , (1993)
					20	reverse		
					21	forward		
					22	reverse		
TNF ζ	ms	1.86		TNF β	23	forward		Nedospasov et al., <i>Supra</i> , (1991); Udolova et al., <i>Supra</i> , (1993)
				HEX GGT TTC TCT GAC TGC ATC TTG TCC TCA TGG GGA GAA CCT GCAGAG AA	24	reverse		
TNF α	ms	1.86			25	forward		Nedospasov et al., <i>Supra</i> , (1991); Udolova et al., <i>Supra</i> , (1993)
				HEX CCT CTC TCC CCT GCA ACA CAC A GCC TCT AGA TTT CAT CCA GCC ACA	26	reverse		
TNF β	ms	1.86			27	forward		Nedospasov et al., <i>Supra</i> , (1991); Udolova et al., <i>Supra</i> , (1993)
				HEX GTC TGT GCA GGG GAG AGA G GCA CTC CAG CCT AGG CCA CAG A	28	reverse		
MICA	ms	2.1			29	forward		Mizuki et al., <i>Diabetes</i> 41:263-269 (1992)
				TET ACA ATG GAC ACT TGG GTT ACT AAT GAG ATG CCA CCT GAA A	30	reverse		
2-4-A	ms	2.4		2.1 HLA-B 2.2 HLA-C	31	forward		Iamijo et al., <i>Tissue Antigens</i> 51:331-346 (1996)
				TET TTA TCT ACT TAT AGT CTA TCA CCC GCC TTC ACT TGA AAC TCA GAG ACC	32	reverse		

Figure 1B

3/5

Marker	Type	Location	Landmarks	Primer	SEQ. ID NO.	Direction	Enzyme	Reference
TUBB	ms	2.5-2.7		FAM GAT CGC TCA CCA GCA CAC TGG CTA T CTG GGC AAC AGA GCG AGC TCC GTC T	33	forward		Ishii & Hobbs, <i>Am J Hum Genet</i> , 46:963-969 (1990); This work based on GenBank X00734
C3-2-11	ms	2.9		FAM TCC TTA CAG CAG AGA TAT GTG G AGA TGG CAT TTG GAG AGT GCA G	35	forward		Tanaka et al., <i>Sympn.</i> , (1998)
		3.4	HLA-A		36	reverse		
D6S510	ms	3.4		FAM CAA CAC ACT GAT TTC CAT AGC AAT GGG CTA CTA CTT CAC ACC	37	forward		GDB ID 600-249-443; Gandon et al., <i>Human Molecular Genetics</i> 3:120 (1994)
M0G11	ms	3.9		HEX GAA ATG TGA GAA TAA AGG AGA GAT AAA GGG GAA CTA CTA CA	38	reverse		Roth et al., <i>Human Immunol.</i> 43:276-287 (1995)
					39	forward		
					40	reverse		

Figure 1C

4/5

Association of MHC markers in the Jewish case-control panel

Marker	Number of alleles	P	Allele	Allele Frequency	
				CD	Control
Topasin	12	0.88			
HKE6	9	0.90			
Tap1	9	0.44			
HLA-DRA	2	0.021			
Notch4	7	0.011	2	35%	25%
HSP-HOM	2	0.12			
D6S273	7	0.84			
Bat2	12	0.12			
LST1	2	0.30			
TNFd	6	0.34			
TNFe	3	0.23			
TNFc	2	0.33			
TNF α	13	0.37			
TNF β	5	0.78			
MICA	11	0.87			
C2-4-4	11	0.70			
TUBB	5	0.014	4	5%	37%
C3-2-11	20	0.92			
D6S510	9	0.79			
MOG11	10	0.31			

Figure 2

		Class I				HLA-A					
		TWF		HLA-B		Transmitted		Not Transmitted		Odds Ratio (95%CI)	
		Hsp-HOM	D6S273	Bat2	LS11	P					
2	2	0.49	0.011	0.050	0.0044	0.22	0.025	0.050	0.025	1.27 (0.58, 2.79)	2.07 (4.03, 4.24)
2	2	2	2	2	2	4	5	15	15	2.5 (0.83, 8.41)	2.64 (1.2, 6.05)
2	2	2	2	2	2	4	5	11	11	1.39 (0.76, 2.56)	10 (0.5, 58)
											43.25 (0.88, 15.2)
											2.5 (0.83, 8.41)
											8.0 (1.55, 100)
											10.0 (0.5, 58)
											10.0 (0.5, 58)

Figure 3